MEDPAR-2

The MEDPAR Report

Medicare Provider Analysis and Review

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Health Care Financing Administration
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Foreword

With the enactment of the Medicare program it became possible to organize a continuing information system to report and analyze the use of health care services by beneficiaries of the program.

This report is the second in the MEDPAR series designed to analyze the use of services by Medicare beneficiaries on a hospital and area-wide level. The MEDPAR-2 report represents a revision of the earlier MEDPAR-1 report. The first MEDPAR report was designed for use by the Professional Standards Review Organizations (PSROs). MEDPAR-2 has been redesigned for use by the Health Systems Agencies as well as the PSROs. The findings from a pilot text conducted to determine ways to improve the usefullness of the MEDPAR report were also taken into consideration. Appreciation is expressed to the four PSROs that agreed to participate in the study. Appreciation is also expressed to individuals in HCFA who made substantial contributions to the conceptualization and development of Medicare data for small area and hospital level analysis including Nathaniel M. Pigman, Jr., George Kowalczyk, Charles Helbing, and David Gibson.

Many individuals in HCFA assisted with the development of the pilot test and the MEDPAR-2 report. Marian Gornick, Carol Walton, Bill Pollak, Tom Ferry, Janet O'Leary, James Lubitz, James Beebe, Kathy Moss, and Maura Bluestone (now of the National Center for Health Statistics) all contributed to this effort.

Additional copies of this MEDPAR-2 booklet may be obtained through the Health Care Financing Administration Publications Office.

Clifton R. Gaus
Director
Office of Policy, Planning
and Research
Health Care Financing Administration

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1. Introduction

Since 1969 a series of reports have been produced to provide Medicare utilization data at the hospital- and area-level to aid in utilization review and program administration. The early reports (1969–71) in the series were known as MADOC (Medicare Analysis of Days of Care). With the initiation of the Professional Standards Review Organization (PSRO) program in 1972[1], the tables were reformatted to conform to the PSRO area designations and retitled MEDPAR (Medicare Provider Analysis and Review). The first MEDPAR report contained 18 tables with data on Medicare discharges from July 1973 to June 1974 and included a booklet entitled MEDPAR–1 explaining how the data were derived and how they may be interpreted.

After the publication of MEDPAR–1, the Bureau of Health Planning and Resources Development requested that a similar series of reports be provided for health planning, using the Health Service Areas established under the National Health Planning and Resources Development Act of 1974. A report was provided for the Health Systems Agencies (HSAs) for the same period covered by MEDPAR–1, July 1973-June 1974.[2]

Because of the utility of the MEDPAR series for both utilization review and health planning, MEDPAR–2 is designed to accommodate either purpose. The booklet in this report may be used with either a set of tables for a PSRO or a set of tables for a Health Service Area. In addition, this text can be used for all reporting periods after MEDPAR–1 unless there is a revision of the tables.

The MEDPAR–2 report (containing 20 tables) incorporates several changes that are the outgrowth of a pilot test conducted after the development of MEDPAR–1 to assess the usefulness of the report and to gather criticisms and suggestions for improving it.

Three major changes in the tables are as follows:

(1) MEDPAR–1 omitted data for hospital stays exceeding 40 days. MEDPAR–2 now includes data for all discharges. Yet, to permit comparability with MEDPAR–1, many of the tables display data for stays of 1–40 days, as well as data for all stays. Tables are labelled to show the distinction.

(2) A suggestion for improving the usefulness of MEDPAR–1 was to include comparative national and regional data. Thus, MEDPAR–2 tables include U.S. and DHEW regional data for comparison.

(3) In MEDPAR–1, table 1 provided an average estimated length of stay derived from a multiple regression technique. The pilot test revealed that the table had limited usefulness. Consequently, MEDPAR–2 does not include that table.

As a result of the pilot test, every table was redesigned to improve its clarity and usefulness. A discussion of each table is provided in section 5.

2. The Purpose of MEDPAR

The MEDPAR tables were designed to provide sample data on hospital stays of Medicare patients aged 65 and over for several variables including: discharge status (alive or dead); surgical status (with or without surgery); selected primary discharge diagnoses; selected surgical procedures; patients' age, sex, and race; the day of the week of admission and the day of the week of discharge. Also included are tables showing a distribution of discharges by length of stay (LOS) intervals, hospital characteristics, hospital charges, and the proportion of discharges and days of care utilized by long stay cases.

The set of twenty MEDPAR tables is designed to show different aspects of Medicare utilization. When arranged by hospital within area, each table focuses on specific variables to provide hospital and area-wide profiles of patient mix and utilization. The hospital-level profiles can help to identify particular hospitals with patient mixes or patterns of utilization that differ substantially from other hospitals in the area. Similarly, the area profiles can be compared with those for the region and nation.

3. Sources and Limitations of the Data

Data used in the MEDPAR reports are derived primarily from information that hospitals report to the Health Care Financing Administration

[1] Social Security Act, Tilte XI, Sec. 1151.

[2] In the report for the HSAs, the system from which the data were derived was referred to as the National Medicare Discharge File. Now that the same explanatory booklet will be used for PSROs and HSAs, the term MEDPAR will be used for both.

(HCFA) through their intermediaries. Data on LOS, primary diagnoses and surgical procedures, charges, and services provided are derived from billing forms submitted by hospitals. Information on hospital characteristics is supplied by hospitals during the certification and recertification process required for participation in the Medicare program. Demographic characteristics of Medicare beneficiaries reported as discharged by each hospital are obtained from a master enrollment record maintained centrally.

Data are compiled and analyzed for a 20-percent sample of Medicare Part A (Hospital Insurance) beneficiaries aged 65 and over discharged during the period covered by the report. Not included in the tables are hospital stays of Medicare beneficiaries enrolled under the disability portion of the Medicare program which covers certain disabled persons under age 65. Patients who died in the hospital, as well as those who were transferred, are included in the file used to prepare this report. Since some patients have more than one hospital stay in the reporting period, the number of discharges exceeds the number of beneficiaries who were hospitalized during the reporting period.

It is important to note that bill-processing lags may result in less than all of the discharges in the 20-percent sample having been processed at the time the MEDPAR report is generated. Consequently, utilization rates should not be estimated using MEDPAR.

The numbers of sample discharges shown in the MEDPAR tables serve two purposes. They provide an estimate of the mix of Medicare patients in a particular hospital or area. In addition, the number of sample discharges is used as the base for determining the sampling error. (See Section 6 for a discussion of sampling errors.)

An estimate of the percent of completeness of the data for any year is given in a footnote to table 1 of that year. Note that the estimated percent completeness applies to all Medicare discharges for the nation. The percent completeness for individual PSRO or HSA areas, hospitals, diagnosis, age and sex categories, etc. may vary considerably from this figure.

Because the intent of the tables is to present data on discharges of aged Medicare beneficiaries discharged from short-stay hospitals (commonly termed "acute care hospitals") participating in Medicare, the sample excludes discharges representing emergency admissions to hospitals not participating in Medicare, discharges from rehabilitation hospitals and distinct parts of long-term facilities, and discharges of disability beneficiaries under age 65 covered under Medicare.

According to the National Center for Health Statistics, persons aged 65 years and older account for about one-fifth of the discharges and one-third of total days of care in all non-Federal short-stay hospitals.[1] Since about 95 percent of persons aged 65 and over are covered by Medicare, a substantial portion of the hospitalizations occurring in the U.S. for the aged are represented in MEDPAR.

All diagnostic information shown in these tables is classified according to the Eighth Revision of the *International Classification of Diseases, Adapted for Use in the United States (ICDA–8), 1968* and modified for use in HCFA. Diagnostic information in the tables is limited to the primary discharge diagnosis and the presence or absence of additional diagnoses. Surgical codes are assigned according to the American Medical Association *Current Procedural Terminology (CPT)* manual, First Edition, 1966, modified for use in HCFA. When two or more surgical procedures appear on a bill, the first listed surgical procedure is coded. However, if the first listed procedure is primarily diagnostic in nature, coding preference is given to more serious nondiagnostic procedures.

A study by the Institute of Medicine (IOM) investigated the reliability of the information on the Medicare claim form by re-abstracting selected data items from a sample of hospital medical records of Medicare cases.[2] When information from the claims file was compared with re-abstracted data, there was virtually perfect agreement on dates of admission and discharge and the sex of the patient, but substantial disagreement was often found on the diagnostic and procedural information, especially for cases with multiple diagnoses. An earlier IOM study used a similar methodology to determine the reliability of information from four private abstracting services. The findings also showed substantial disagreement on diagnostic and procedural infor-

[1] National Center for Health Statistics, DHEW, "Utilization of Short-Stay Hospitals: Annual Summary for the United States, 1975," Vital and Health Statistics, Series 13, No. 31, April, 1977, pp. 2–3.

[2] Institute of Medicine, *Reliability of Medicare Hospital Discharge Records*, (Washington, D.C., National Academy of Sciences, November 1977).

mation, especially in cases with multiple diagnoses.[1] Thus, users of abstracted data should proceed cautiously in using diagnostic and procedural information. Such data may not agree completely with that abstracted by others.

4. Hospital Groups

By PSRO areas: Each participating short-stay hospital has been included in one of the geographic areas designated as a PSRO service area. PSRO areas were established by the Secretary of DHEW taking into consideration general guidelines to implement the law. None of the PSRO areas cross state lines except the Pacific PSRO which includes Hawaii, American Samoa, Guam, Northern Marianos, and the Trust Territory of the Pacific. The areas do not divide counties except in the case of Los Angeles county and the State of Massachusetts.

By Health Service Areas: Each participating short-stay hospital has been included in one of the Health Service Areas. The National Health Planning and Resources Development Act of 1974 gives the governors (or chief executives) the responsibility and authority for designating Health Service Areas in their states and jurisdictions, subject to mandated requirements and approval of the Secretary of DHEW. Some of the Health Service Areas cross state lines; some of the areas divide a county. Consequently, a Health Service Area may not be fully contained in a single DHEW region. In such cases, the Health Service Area is placed in the DHEW region in which most of the hospital discharges occur.

The PSRO area designations are contained in the March 18, 1974, edition of the *Federal Register* (Vol. 39, No. 53, Part II, 10206–10213). The HSA area designations are contained in the September 2, 1975, edition of the *Federal Register* (Vol. 40, No. 170, Part III 40306–40316). Later editions of the *Federal Register* contain revisions and corrections to the PSRO and HSA area designations.

5. Discussion of the Tables

The MEDPAR tables provide estimates of the mix of Medicare patients, including the proportion of patients discharged alive and proportion discharged dead, the proportion of patients undergoing surgery, the length of hospital stays, the distribution of cases according to the day of the week of hospital admission and discharge, the length of stay of patients according to the day of the week of admission and discharge, the major medical conditions for which patients are hospitalized, and the age, race, and sex of the patient population.

Full and accurate interpretation of the hospital utilization patterns of Medicare patients, however, requires additional knowledge and more defined data about the individual health care resources available to Medicare beneficiaries and specific socioeconomic features of the Medicare population. These profiles of patterns of hospital use by Medicare patients do not provide information regarding the appropriateness of or the necessity for care, the patterns of hospital use by non-Medicare patients, or efficiency or effectiveness of hospital performance. They can, however, provide estimates of general patterns of Medicare hospital use which are useful to the HSAs and PSROs in performing planning and utilization review activities.

Twenty tables have been designed to present these data for each reporting period. It is possible that, in a particular edition, system constraints—such as data that do not meet quality control editing checks—may prevent the publication of one or more tables; in the event this does occur, table numbers will remain consistent with the discussion below.

Various tables summarize the data by live/dead status at discharge, but unless otherwise stated, the data represent total (live and dead) discharges. Also provided on most tables for comparison purposes are totals for each area, for the DHEW region in which the area is located, and for the total U.S. (The states within each DHEW region are listed at the end of this publication.) Note that average length of stay (ALOS) is computed using total days hospitalized, not just those days for which there is hospital reimbursement under Medicare or certification by a PSRO.

Each table focuses on a specific element of information, e.g., surgical status of patients or average stays for diagnostic categories. In approaching each table, the reader should ask:

(1) What specific pattern of Medicare hospital use is displayed by this table?

[1] Institute of Medicine, *Reliability of Hospital Discharge Abstracts*, (Washington, D.C. National Academy of Sciences, February 1977).

(2) What questions or issues are raised by this table which may require further study?

(3) What is already known about hospital administrative and/or clinical practices or about the type of Medicare patients in the hospital or area which might explain the observed utilization patterns?

(4) What additional data or information, including that in the other tables, are needed to help explain the questions or issues raised by this table?

The major elements of information in the tables and their potential interest are discussed below.

Table 1 provides hospital-level general summary data on short-stay hospital discharges for each hospital with at least 5 sample discharges in the 12-month reporting period. The number of discharges and ALOS for all stays and stays of 1 to 40 days are displayed for total discharges, for patients discharged live, and for patients discharged dead.

Table 2 provides hospital-level data on selected characteristics of the short-stay hospitals participating in Medicare. The characteristics may be useful to help explain differences in utilization and charge data among the provider institutions. For each hospital in the area, the type of control, the number of Medicare certified beds, and the presence of a medical school affiliation or approved resident and/or intern training program are presented. (For an explanation of these terms see the "Definitions and Explanatory Notes" section at the end of this report.)

Table 3 provides area-level data for selected primary discharge diagnoses. For the area, the DHEW region and the total U.S., the table displays the number of discharges and ALOS for all stays and stays of 1 to 40 days, as well as LOS at specified percentiles for 15 diagnoses or diagnostic groups, all other diagnoses, and total diagnoses. (See Section 3 on sources and limitations of diagnostic and procedural data.)

Table 4 provides area-level information (similar to Table 3) for 20 selected principal surgical procedures, all other surgical procedures and total surgical procedures.

Table 5 provides hospital-level data by diagnosis. It allows analysis of variations among hospitals and helps to identify different case mixes which may reflect variations in hospital services provided and/or differences in the populations served. Special caution must be exercised when using this data in instances where the number of discharges is small. (Data for discharges with stays of 1 to 40 days only.)

Table 6 provides hospital-level and area-level data displaying the percent distribution of discharges by LOS categories. This table may be helpful in the identification of potentially unsatisfactory utilization practices. For example, relatively high percentages of very short stays may indicate unnecessary admissions, i.e., care that might be performed on an outpatient basis; a relatively high percentage of shorter than average stays, e.g., less than 7 days, might indicate premature discharges that could result in readmission; and high percentages of longer than average stays, e.g., more than 21 days, might indicate the presence of inappropriately long stays at the acute care level. Also shown for each hospital is the percent of total days of care utilized by cases with stays of 1 to 40 days and cases exceeding 40 days.

Table 7 presents the same data elements as Table 6 but for live discharges only. Analyses would provide similar information to that discussed above.

Table 8 presents the same data elements as table 6 but for patients discharged dead. Comparisons between Tables 7 and 8 indicate different utilization patterns for live and dead discharges. Note that fewer LOS categories are shown in Table 8 than in Table 7 because there are fewer dead discharges. A high percentage of deaths at either end of the percent distribution could have implications for the degree of severity of the hospital's case mix and/or treatment of the terminally ill.

Tables 9 through 12 answer questions about patterns of admitting and discharging patients according to the day of the week. These tables can also raise questions about how hospital resources can be utilized most efficiently and economically. If patients were admitted and discharged uniformly throughout the week, on the average, 14.3 percent would be admitted each day and 14.3 percent would be discharged. These tables should be useful to health planners since admitting and discharge practices can affect occupancy rates which in turn can affect the need for more or less resources. The tables should also be useful for utilization review because admitting and discharge practices may affect ALOS. (Graphic displays of Tables 9 through 12 are appended to the tables.)

Table 9 presents hospital-level and area-level data displaying the percent distribution of discharges by the day of the week of admission. A low percentage of Friday or Saturday admissions could indicate inefficient utilization of facilities and services and/or inefficient physician admitting practices. (Data for discharges with stays of 1 to 40 days only.)

Table 10 presents hospital-level and area-level data displaying the ALOS of discharges by the day of the week of admission. A relatively high ALOS for Friday or Saturday admissions might indicate less efficient operation, i.e., such patients may have been rendered less services on the weekend of admission, thus, prolonging the hospitalization. (Data for discharges with stays of 1 to 40 days only.)

Table 11 presents hospital-level and area-level data displaying the percent distribution of live discharges by the day of the week of discharge. A low percentage of Sunday discharges could indicate inappropriate use of facilities and inefficient physician discharge practices. (Data for discharges with stays of 1 to 40 days only.)

Table 12 presents hospital-level and area-level data on the ALOS of live discharges by the day of the week of discharge. A relatively high ALOS for Monday discharges may correlate with a low percentage of Sunday discharges (from Table 11) and may indicate less efficient use of resources if some Monday discharges could have occurred during the weekend. (Data for discharges with stays of 1 to 40 days only.)

Table 13 presents hospital-level and area-level ALOS for surgical and nonsurgical discharges. In addition, a graphical and numerical display of the percent of discharges with surgery is presented for inter-hospital comparisons. This table provides information regarding the relative contributions of surgical and nonsurgical discharges to utilization and may indicate possible problem areas. (Data for discharges with stays of 1 to 40 days only.)

Table 14 presents hospital-level and area-level data on total ALOS, preoperative ALOS, and postoperative ALOS for surgical discharges (excluding endoscopic procedures without effect on tissue). A long preoperative or postoperative ALOS might indicate areas where efficiency could be improved. For example, a long preoperative ALOS could indicate that more diagnostic testing could be performed prior to admission and the surgery performed earlier in the stay. In addition, a graphical display of approximate preoperative/postoperative ALOS may facilitate inter-institutional comparisons. It should be noted that if date of surgery is not available in some records, the records are excluded from the part of the table showing the length of the preoperative and postoperative stay. (Data for discharges with stays of 1 to 40 days only.)

Table 15 presents hospital-level and area-level data displaying the number and the ALOS for surgical discharges with either a single diagnosis or multiple diagnoses. This table may provide a possible explanation of high ALOS, i.e., a high percentage of surgical discharges with multiple diagnoses may be responsible for longer stays. (Data for discharges with stays of 1 to 40 days only.)

Table 16 presents the same data elements as table 15 for nonsurgical discharges. Analyses would provide similar information to that discussed above. It should be noted that if the indicator for the presence or absence of multiple diagnoses is not available, the record is excluded from the part of the table showing the number of records with single or multiple diagnoses. (Data for discharges with stays of 1 to 40 days only.)

Tables 17 and 18 present the percentage distribution of cases and ALOS by age, sex, and race at the hospital and area levels. The tables can be used to compare the demographic characteristics of the patients in different hospitals and provide some indication of the type of population they serve. National data for the Medicare population show that ALOS varies by these demographic characteristics. ALOS generally goes up with age, is higher for women than men, and is lower for white persons than persons of all other races.

Table 17 presents the percentage distribution and ALOS by age group at the hospital-level and area-level. (Data for discharges with stays of 1 to 40 days only.)

Table 18 presents the percentage distribution and ALOS by sex and race at the hospital-level and area-level. (Data for discharges with stays of 1 to 40 days only.)

Table 19 presents hospital-level and area-level data on average total charges per stay and average charges per patient day. Note that data shown are for total hospital charges, not actual reimbursements which are based on reasonable costs

after deductibles and coinsurance. (Data for discharges with stays of 1 to 40 days only.)

Table 20 provides hospital-level and area-level utilization data on long stay discharges (stays of more than 28 days). The table displays the number of long stays and days of care utilized by long stays. A high proportion of long stay cases in particular hospitals and areas may reflect differences in case mix or availability of alternative services such as nursing home care or other factors. Also shown are the number of long stays in each category as a percentage of all stays, all nonsurgical stays, all surgical stays, all stays for patients aged 65–74, and all stays for patients aged 75 and over. The table also displays the number of days of care for long stays in each category as a percentage of all days, all nonsurgical days, all surgical days, all days for persons aged 65–74 and all days for persons aged 75 and over. These data are presented in order to focus on types of cases or age groups with the longest stays.

6. Technical Aspects of the Data
Reliability of Estimates in MEDPAR

The MEDPAR statistics are estimates derived from a 20-percent probability sample of Medicare inpatient beneficiaries. Two types of errors can occur when estimates are derived from a sample —sampling and nonsampling.

Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample, mistakes in recording or coding the data, and other errors related to collecting, processing, and estimating missing data. Some of the specific sources of nonsampling errors are discussed in Section 3 of this report.

Sampling error occurs because observations are made only on a sample, not the entire population. The standard error is primarily a measure of sampling error. Approximate standard errors are shown in tables A through C.

The sample estimate and an estimate of its standard error permit us to construct interval estimates with prescribed confidence that the interval includes the average result of all possible samples.

To illustrate, if all possible samples were selected, each of these were surveyed under essentially the same conditions, and an estimate and its estimated standard error were calculated from each sample, then the following would hold:

a. Approximately two-thirds of the intervals from one standard error below the estimate to one standard error above the estimate would include the average value of all possible samples. We call an interval from one standard error below the estimate to one standard error above the estimate a two-thirds confidence interval.

b. Approximately nineteen-twentieths of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples. We call an interval from two standard errors below the estimate to two standard errors above the estimate a 95-percent confidence interval.

c. Almost all intervals from three standard errors below the sample estimate to three standard errors above the sample estimate would include the average value of all possible samples.

Thus, for a particular sample, one can say with specified confidence that the average of all possible samples is included in the constructed interval.

To derive estimates of standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item. In general, estimates for small subgroups and percentages or means with small bases tend to be relatively unreliable and should be used with caution.

The relative sampling error is defined as the standard error of an estimate divided by the estimate. It is a convenient measure of the importance of sampling error of an estimate. The magnitude of relative error that is acceptable depends on the needs of the user. However, the user should be aware that many estimates in this report have relative errors in excess of 10-percent.

Table A shows approximate standard errors for the number of discharges in a sample. To illustrate its use, assume that hospital X shows a total of 500 sample discharges on table 1 of which 30 have a diagnosis of pneumonia as shown on table

5. The standard error of the 500 discharges is found to be 31 and the standard error of the 30 discharges is found to be 7.5.

Table B presents approximate standard errors for average length of stay. Its use requires knowledge of both the ALOS and the number of discharges on which it is based. Most of the tables present these data together. However, some tables may require additional calculations to determine the base. To illustrate, assume that on table 10 hospital Z is shown to have an ALOS of 10 days for patients admitted on Wednesday. Table 9 shows that hospital Z has a total of 2,000 discharges of which 5 percent were admitted on Wednesday. Thus, the base of the 10-day ALOS is $2{,}000 \times .05 = 100$ and the standard error is found to be 1.4 days.

Table C presents the approximate standard errors of the percent distribution of discharges. Its use also requires knowledge of the number of discharges in the base. These are always shown on the table with the distributions. For example, table 8 shows the percent distribution of dead discharges by length of stay; the base (number of dead discharges) is shown in the second column of the table.

Table A.—Approximate standard error of number of discharges in sample

Number of discharges in sample	Standard error of discharges
5	3.1
10	4.4
30	7.5
50	9.7
100	14
300	24
500	31
1,000	43
3,000	74
5,000	95
10,000	130
30,000	230
50,000	290
100,000	420
200,000	620
300,000	800
400,000	970
500,000	1,100
600,000	1,300
700,000	1,500
800,000	1,700
900,000	1,800
1,000,000	2,000

Table B.—Approximate standard error of average length of stay

Average length of stay (days)	Base of average (number of sample discharges)															
	5	10	20	50	100	200	600	1,000	2,000	6,000	10,000	20,000	60,000	100,000	200,000	600,000	1,000,000
1	2.3	1.6	1.1	.72	.51	.36	.21	.16	.11	.066	.051	.036	.021	.016	.012	.0066	.0050
2	3.0	2.1	1.5	.96	.68	.48	.28	.22	.15	.089	.069	.049	.028	.022	.016	.0089	.0068
5	4.4	3.1	2.2	1.4	.99	.70	.41	.32	.22	.13	.10	.072	.042	.033	.023	.014	.011
10	6.1	4.3	3.1	1.9	1.4	.97	.56	.44	.31	.18	.14	.099	.058	.045	.033	.020	.017
15	7.8	5.5	3.9	2.5	1.8	1.2	.72	.55	.39	.23	.18	.12	.073	.057	.041	.027	.023
20	10	6.8	4.8	3.1	2.2	1.5	.88	.68	.48	.28	.21	.15	.088	.069	.051	.034	.030
25	12	8.2	5.8	3.7	2.6	1.8	1.1	.82	.58	.33	.26	.18	.10	.082	.060	.041	.037
30	14	9.7	6.8	4.3	3.0	2.2	1.2	.96	.68	.39	.30	.21	.12	.096	.071	.049	.044
35	16	11	7.9	5.0	3.5	2.5	1.4	1.1	.78	.45	.34	.24	.14	.11	.081	.057	.051
40	18	13	9.0	5.7	4.0	2.8	1.6	1.3	.89	.51	.39	.27	.16	.12	.092	.064	.059

Table C.—Approximate standard error of percent distribution of discharges

Percent	Base of average (number of sample discharges)															
	5	10	20	60	100	200	600	1.000	2,000	6,000	10,000	20,000	60,000	100,000	200,000	600,000	1,000,000
1 or 99	6.1	4.3	3.1	1.8	1.4	1.0	.56	.43	.31	.18	.14	.10	.055	.043	.030	.017	.013
2 or 98	8.6	6.1	4.3	2.5	1.9	1.4	.79	.61	.43	.25	.19	.14	.078	.060	.042	.024	.019
5 or 95	13	9.5	6.7	3.9	3.0	2.1	1.2	.96	.67	.38	.30	.21	.12	.093	.065	.038	.030
10 or 90	19	13	9.2	5.3	4.1	2.9	1.7	1.4	.92	.53	.41	.29	.16	.13	.089	.053	.043
20 or 80	25	17	12	7.1	5.5	3.9	2.2	1.9	1.2	.70	.54	.38	.22	.17	.12	.075	.063
30 or 70	28	20	14	8.1	6.3	4.4	2.6	2.2	1.4	.80	.62	.43	.25	.19	.14	.091	.080
40 or 60	30	21	15	8.7	6.7	4.7	2.7	2.5	1.5	.85	.66	.46	.26	.21	.15	.10	.093
50	31	22	15	8.9	6.9	4.8	2.8	2.8	1.5	.87	.67	.47	.27	.21	.16	.11	.10

7. Definitions and Explanatory Notes

Short-Stay Hospital: General and speciality (e.g., womens', eye-ear-throat, etc.) hospitals (commonly termed acute care hospitals) certified as participating facilities under Medicare and reporting an ALOS of less than 30 days.

Discharge: The formal release of an inpatient from a hospital. Includes those persons who died during their hospitalization or were transferred to other hospitals.

Length of Stay: The number of days of care for a discharge. The day of discharge is not counted as a day of care. A hospitalization of less than 1 day (i.e., the patient is admitted and discharged on the same day) is counted as 1 day.

Primary Discharge Diagnosis: The primary reason for the patient's hospitalization—that is, the disease, illness, condition or injury requiring the current hospitalization—recorded on the billing form (SSA–1453). This diagnosis is coded using the International Classification of Disease, Adapted, Eighth Revision (ICDA–8).

With and Without Surgery: A discharge is considered to involve surgery if any operative procedure classified as such, according to the Current Procedural Terminology (CPT), First Edition, American Medical Association, Chicago, Illinois, 1966, was performed during the stay. Surgery includes procedures involving incision, excision, amputation, introduction, endoscopy, repair, destruction, suture, manipulation, or surgical collapse therapy. All other discharges are classified as "without surgery." Note: Table 14 excludes endoscopic procedures without effect on tissue.

Preoperative and Postoperative Length of Stay: In the presentation of LOS data relative to a date of surgery, the day on which the surgical procedure was performed is included with the postoperative stay.

Age: The number of completed years at last birthday in month of admission to the hospital.

Percentile: The 10th, 25th, 50th, 75th, and 90th percentiles of length of stay are presented. The 50th percentile is the median of the distribution. That is, half of the stays fall above and half below the median of the distribution. The meaning of the percentiles can be illustrated by example: If the 10th percentile for a group of discharges is 2 days, then 10 percent of the discharges stay 2 days or less.

Definitions Relating to Hospitals:

Government (non-Federal).—Hospitals whose governing authority is a unit of government. The unit may be a state, county, city, city and county government jointly, or a hospital district established by a state agency.

Federal.—By statute, hospitals owned or operated by the Federal government are excluded from participation in the program unless the Secretary of Health, Education, and Welfare finds that a Federal hospital serves as a community institution. Those designated as community hospitals participate fully in the program. All other Federal hospitals are authorized to provide emergency services only.

Church–nonprofit.—Hospitals whose governing authority is a nonprofit religious organization.

Other nonprofit.—Hospitals whose governing authority is a nonprofit organization other than a religious one.

Proprietary.—Hospitals whose governing authority is an individual, partnership, or profit-making corporation.

Beds.—Includes the number of hospital beds certified for Medicare inpatients. Excludes beds in facilities that are set up and staffed for patients receiving specialized care for a portion of their stay or which are used only as holding facilities prior to a patient's transfer to another hospital.

Affiliation with a medical school.—A number of licensed medical schools maintain and staff component hospitals to provide the full complement of clinical training. Other major hospitals have been selected by medical schools to serve as major units in the school's teaching program. These two categories of hospitals are categorized as affiliated.

Approved resident and/or intern program.—Indicates the presence of approved residencies and/or intern programs in the clinical divisions of medicine, surgery, and other special fields.

Geographic Classifications.—Areas are grouped into DHEW regions according to their state as follows:

Region I:	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Region II:	New Jersey, New York, Puerto Rico, Virgin Islands
Region III:	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia
Region IV:	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
Region V:	Illinois, Indiana, Michigan Minnesota, Ohio, Wisconsin
Region VI:	Arkansas, Louisiana, New Mexico, Oklahoma, Texas
Region VII:	Iowa, Kansas, Missouri, Nebraska
Region VIII:	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Region IX:	Arizona, California, Hawaii (including Guam, American Samoa, Northern Marianos, and the Trust Territory of the Pacific), Nevada
Region X:	Alaska, Idaho, Oregon, Washington

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